

Datel 2400 service

Datel 2400 service provides high speed data transmission facilities using private circuits.



Description

The Datel 2400 service provides facilities for data transmission at a speed of 2400 binary digits (bits) per second using private circuits. A standby method of working is available at speeds of 600/1200 bits per second over the Public Switched Telephone Network (PSTN). The service has many applications which include information retrieval, seat reservation, production control and commercial administration. Typical terminals using this service include visual display units, line printers, card readers, punch tape readers and remote job entry terminals.

The use of an appropriate modulator/demodulator (modem) is required in conjunction with a private circuit of suitable quality. The modem translates the information from the terminal equipment into signals suitable for transmission over telephone circuits. The modem has a standard interface socket and any terminal that has been permitted by the Post Office for connexion and is suitable for the service, can be used.

The private circuit required is a high quality 4-wire circuit over which the customer can also have speech and signalling facilities.

How it operates

The modem is connected to the telephone associated with the private circuit. The customer signals the distant end either automatically by lifting the handset, or manually by lifting the handset and pressing a button on the telephone. When the connexion has been made the customer then switches to the modem and transmits the data.

The exact method of switching the modem to the circuit will depend on the facilities required by the customer. There are 3 basic methods of switching the modem to line: by pressing buttons on the telephone associated with the service; by a switch on the private terminal equipment; by a combination of the last two methods.

Facilities

Datel 2400 Service offers a number of facilities designed to meet specific system needs, the columns in the chart below indicate typical facility combinations that are available. It is also recommended that the customer rents an exchange line at either end of the circuit to give, in the event of a private circuit line failure, standby transmission at a reduced speed over the PSTN. The standby working offers transmission speeds of 600 bits per second on all connexions and 1200 bits per second on a substantial number of all calls made. The 75 bit supervisory channel is also available over the PSTN. The exchange line can also be used to provide remote test access facilities to the modem from the Datel Test Centre. Our Special Services Sales Representatives will be glad to advise customers on their individual requirements.

Key to options chart



Private circuit 4-wire

Backward 
Forward 

Public Switched

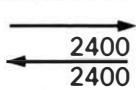





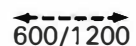





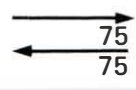


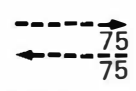

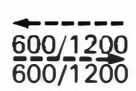

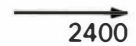





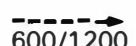

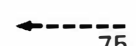



Backward 
Forward 

Telephone Network

Backward 
Forward 
Speed in bits 2400

Facilities

Typical facility combinations

2400 bits both ways simultaneously  2400							
Alternative 600/1200 bits on PSTN not simultaneously  600/1200							
Unattended answering on standby							
75 bits channel both ways simultaneously  75							
Alternative 75 bits channel on PSTN simultaneously  75							
Alternative 600/1200 bits on PSTN simultaneously  600/1200							
2400 bits on forward channel  2400							
75 bits on backward channel  75							
Alternative 600/1200 bits on PSTN forward channel  600/1200							
Alternative 75 bits on PSTN backward channel  75							
Additional Two modems per end required							

General information

The modem used with the Datel 2400 service employs a proven phase modulation transmission technique for use with the 4-wire private circuit. On alternative working over the PSTN a frequency shift keying modulation system is used. The modem is housed in a two-tone grey metal case and has no controls to which access is normally required but there is a test button at the rear. The tariff for the modem, which consists of a connexion charge and annual rental, is inclusive of normal maintenance charges.

Dimensions and weights

Width 442mm (17½")
Length 425mm (16¾")
Height 330mm (13")
Weight 31.5kg (70lbs) approximately when fully equipped.

Environment

Ambient temperature +5°C to +45°C
Relative humidity 90% maximum.

Power

200-250 volt AC, 45 to 55Hz single phase.
Power consumption 70 watts maximum.

Modulation method

Main mode 4 phase differential modulation
(CCITT V26A recommendation) :
Phase modulation for dibit 00–0°
Phase modulation for dibit 01–90°
Phase modulation for dibit 11–180°
Phase modulation for dibit 10–270°
Standby mode frequency shift keying
(CCITT V23 recommendation) :
600 bits binary 1 1300 Hz
 binary 0 1700 Hz
1200 bits binary 1 1300 Hz
 binary 0 2100 Hz

Supervisory channel – frequency shift keying

75 bits binary 1 390 Hz
 binary 0 450 Hz

Data signalling rate

Main mode 2400 bits synchronous
Standby mode 1200 bits synchronous
 or 600 bits synchronous.
Supervisory channel 75 bits asynchronous.

Method of operation

Main mode – duplex, half duplex and simplex.
Standby mode – half duplex and simplex.

Transmission path

main mode – 4-wire private circuit.
Standby mode – PSTN.

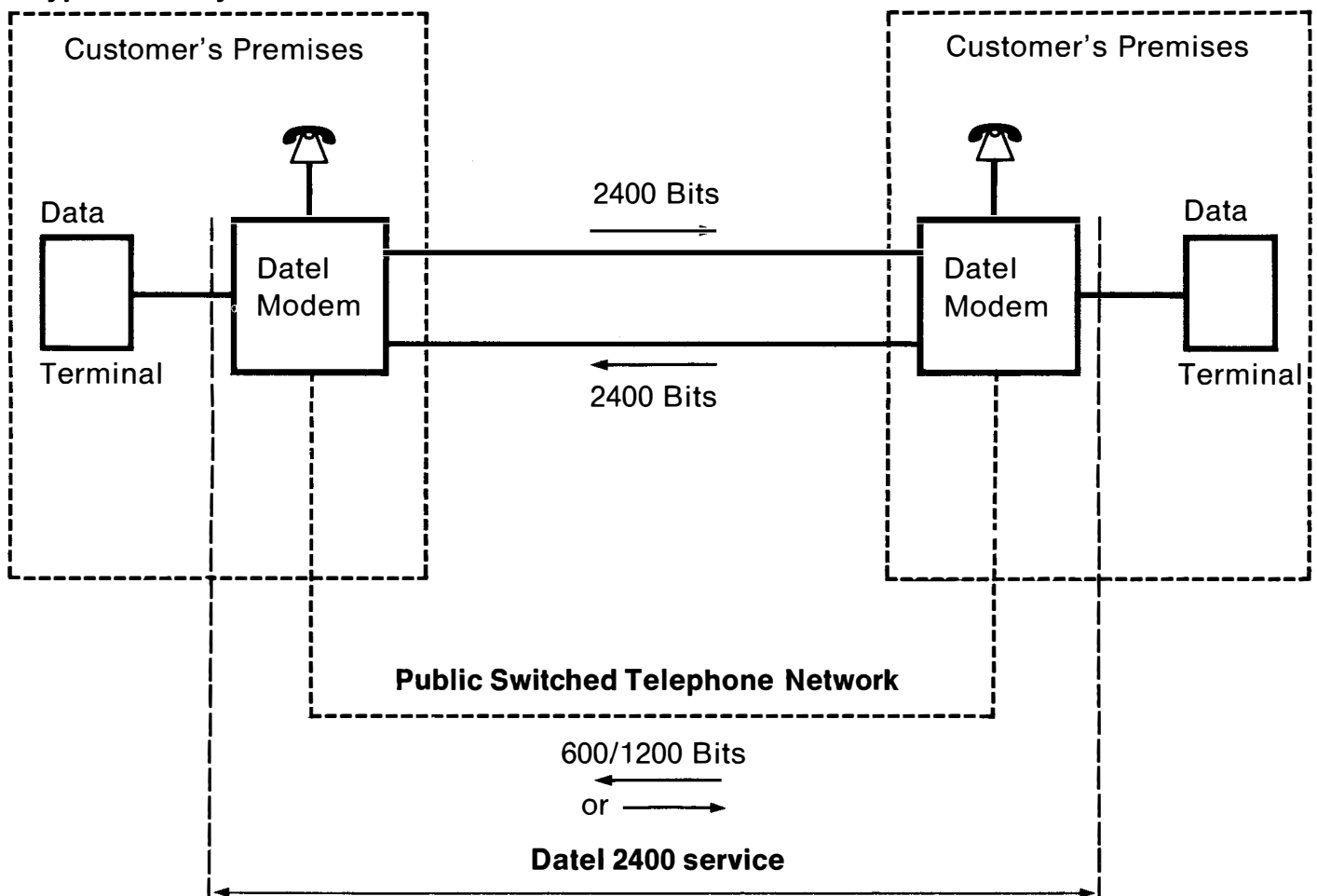
Interface connexion

CCITT V24 recommendation. Using a standard 25 pin D type connector, specification available on request.

Interface circuits

All circuits conform to CCITT V24 recommendation.

A typical facility combination



Please note

We do our best to supply our customers with the service and apparatus they ask for but we may have to provide service and apparatus which does not accord exactly with the descriptions and illustrations in this leaflet.

For further or up-to-date information please contact your Telephone Sales Office and ask for the special services section. The address and telephone number are shown in the preface of your telephone directory.